

BARG Newsletter October 2025

***Ballarat Amateur Radio Group Inc. #6953T
October 2025 Monthly Newsletter***

**Next General Meeting BARG inc
7:30PM, Friday 24th October 2025
At the Airport - All Welcome**



Contacting us
BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>



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Front Page; Ian VK3AXH in his shack

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU

LINKED REPEATERS: The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.

Access details for this repeater have recently changed.

For full details of this linked network and access details see <https://www.qrz.com/lookup/vk3rba>

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503

APRIL MEETING: Bob (VK3BNC) will demonstrate the Club's new secret weapon in the war against NON-RESONANCE and STANDING WAVES. Come along and see Bob use BARG's latest acquisition, the MFJ ANTENNA SWR ANALYSER, after all you may have a need to use it yourself soon. Don't forget: Friday 29th April - 7.30PM at the Education Centre in Hopetoun St.

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From the archives, Colin VK3NCC.



Presentation at October General Meeting



Robert VK3ARM will be giving a presentation on his experience and tips on how to use VK-Port-Alog in the field when participating in POTA (Parks On The Air0).

An article on page 5 of this newsletter can be use as a primer for those interested.

BARG inc. OFFICE BEARERS

President	Vacant	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Ian Fairweather VK3YFD
Secretary	Peter Westgarth VK3APW	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Jeff Rickerby VK3JHR	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Ben Daniel VK3NRD

The next BARG General Meeting

Friday 24th of October 2025 7:30PM

Editor's Footnote – Oops!

In the last issue, I included a few vintage exam questions for your intellectual entertainment. Unfortunately, in my enthusiasm to share them, I also shared the answers... neatly marked with little asterisks.

Yes, dear reader, you got the rare chance to sit an open-answer exam. Some might call that 'cheating made easy,' but I prefer to think of it as 'value-added service.'

My apologies for not including a small bottle of White-Out with each newsletter so you could redact the answers before testing yourself. Unfortunately, Australia Post told me they draw the line at shipping correction fluid in bulk.

For future editions, I'll either remove the answer marks—or go all the way and print the examiner's notes as well, so you can see why you were wrong before you even pick up a pen. Saves everyone time.

Until then, please mark this one down as another case of the Editor's Curse:

If there's a way to trip over a keyboard, I'll find it.

Shorter version for those in a hurry:

Apologies for the exam answers being pre-marked in the last issue. I should have included a bottle of White-Out with each newsletter.

However AI and Google have not perfected the StarTrek "beam me up Scotty thingy" to send the bottle.

Think of it as my gift to help everyone pass with flying colours!



Youth Net on the Link System

Contributor James VK3JFR
Youth net on the VK3RBA linked system. 8:00pm
AEDT or 0900 UTC

28/09/25

Net called off due to Oceania DX contest station preparations.

5/10/25

VK4IKZ, VK3JFR, VK4AHA, VK3NFL, VK3BKO,
VK1AAK, VK3ASP, VK3HJQ

12/10/25

VK3JFR, VK3HJQ, VK3FTOM, VK4AHA, VK1AAK,
VK4MCW, VK2QE, VK4IKZ, VK4HLC



Multi-Operator Team for the Oceania DX SSB Contest 2025

For the Oceania DX SSB contest myself and my friend group were granted access to a Flex radio remote in Western Australia on October 4th and 5th 2025.

The Multi operator, single transmitter team participated under our contest callsign VJ4K which includes James VK3JFR, Max VK4MCW, Otto VK4OTZ, Keldon VK4KDF and Edward VK1AAK.

We operated for about 8 hours until we had equipment failure due to the heavy downpour of rain which entered into the coils of the multi band yagi. This caused the VSWR to rise and damage the amplifier with little to no warning. Everything was going strong until it wasn't.

On the bright side we managed 300 contacts from all across the world. We are looking forward to seeing the results and we are hoping to win the Youth category and a shiny plaque. Cheers James VK3JFR.

JAYCAR CLUB MEMBER DISCOUNT

Dear All,

As a result of the efforts of Peter/APW and Ian/YFD the BARG now has a trade Account with JAYCAR.

This account will provide discount on items purchased at JAYCAR.

There will be some exclusions.

To take advantage of this benefit you will have to show your current BARG membership card that shows your name, an expiry date and identify the Trade account number when you make a purchase.

For convenience, this number has been included on the current issue membership card. These were made available at the AGM.

If you did not attend, arrangements will need to be made to collect.

Cheers, Colin VK3NCC



VK Port-A-Log Presentation

Contributor Robert VK3ARM



Here's a bit of information that you might like to check before my session at **the BARG on Friday 24th October 2025**. My aim on the night is to keep it as clear as possible without getting too complicated.

Do you have an Android Tablet? If so install the following and bring it along:

VK Port-A-Log from Peter Fraser's site. Link is below. CX File Explorer, available on the Android Play Store.

What I'll be talking about is my experience in getting in to Park activities, using VK-Port-A-Log.

Note that this program is only suitable to use on an Android Device. There is an iPhone & iPad app, developed by Sue VK5AYL. You can find it at www.vk5ayl.com.

I know nothing about the Apple App.

I had an old Samsung Tablet but I decided to buy an 11 Inch replacement. I find that it is way better using this App on a larger screen rather than trying to struggle with my mobile phone.

Below are some sites that you might like to check out.

This is a general description of VK Port-A-Log from Peter Fraser's Website:

<https://vk3zpf.com/vk-port-a-log>

Here is Peter Fraser's Port-A-Log Guide:

https://www.wwffaustralia.com/uploads/1/3/9/8/13982788/vk_port-a-log_v20161218_03.pdf

Here's where to get the Android Installer for VK Port-A-Log:

<https://groups.io/g/vk3zpf-logger/files/VK%20port-a-log%20files%20distribution%20files>

This is a short You Tube Video made by Wade VK1FWBD:

<https://www.youtube.com/watch?v=3-cCCdfOIlA>

As part of the log submissions, Peter Fraser recommended that I install **CX File Explorer**, an Android App available on the Play Store. This made it much easier for me to find the Log Files that had been created in VK Port-A-Log. The logs I submit are in **ADIF** Format.

They are automatically created for each Park that I activate. It's just a matter of sticking them into an email and sending them to Peter VK3ZPF.

Using this method is much simpler and better than using pen and paper then having to create computer files in Microsoft Excel. Initially I'd spend a lot of time making CSV Files to submit. It was Mal VK3OAK who pointed me to VK Port-A-Log and I'm eternally grateful for his suggestion.

Useful world map to check Park activations.

Magnify into AU and VK3 and it shows Parks, including how many QSOs it had and when it was last activated.

<https://ham-map.com/>

Looking forward to seeing you at the meeting.

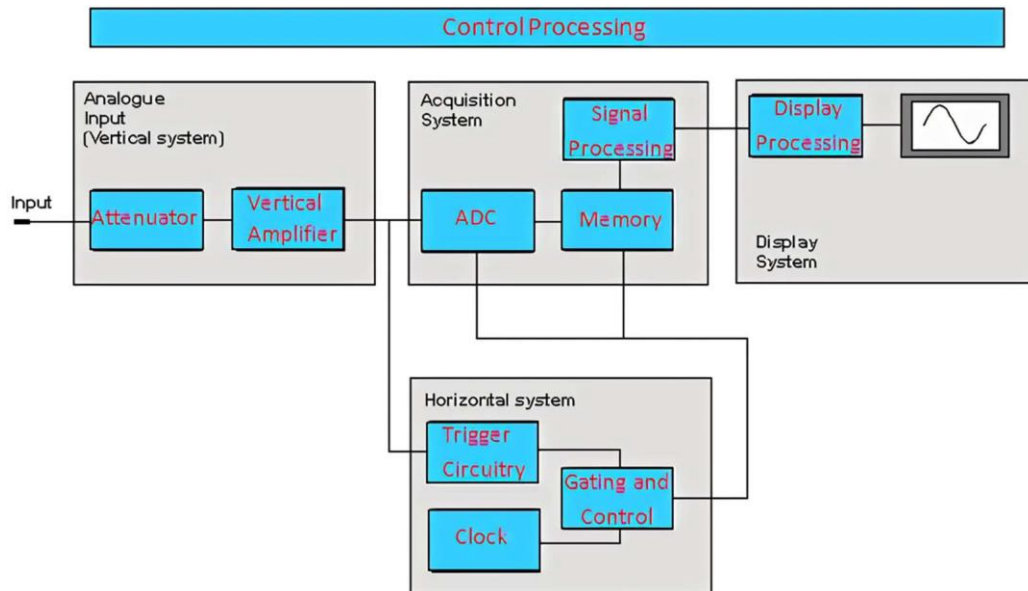
Thanks... Robert VK3ARM



Oscilloscopes Part Two – Digital

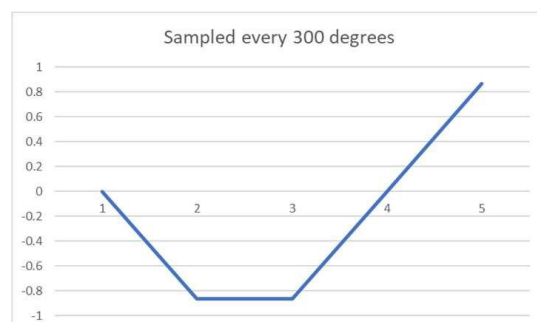
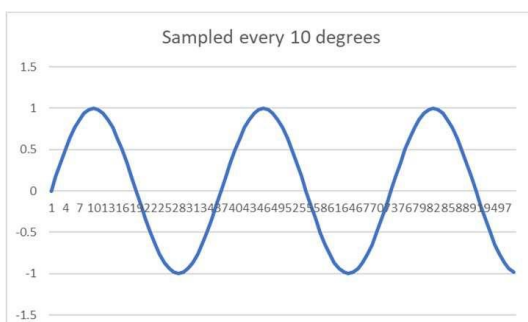
By Brian Sala - VK3ZUS for BARG

Digital oscilloscopes do not use a CRT to display signals. They still have high sensitivity broadband amplifiers for the vertical inputs, but the timebase ramp generator is replaced by a clock generator which sets the timing of the data acquisition circuits.



The vertical amplifier output is fed to an analog to digital (ADC) converter which takes an instantaneous measurement of the voltage each time the clock generator sends a pulse. Each measurement is stored in memory. Faster clocks take more samples, so give a more accurate record of the signal (see plots below). The process is known as digital sampling, and if sufficient samples are taken (ie taken fast enough), a good replica of the original signal can be reproduced from those sample points. The sampling system can run continuously, storing data in a first-in first-out memory (FIFO), and this gives an immediate advantage over an analog scope which can only begin a sweep *after* a trigger event occurs. A digital scope can be acquiring data prior to the trigger event, and so can show the waveform *leading* to the trigger. This enables the input signal to be viewed *before* the trigger event occurs. This is known as pre-triggering.

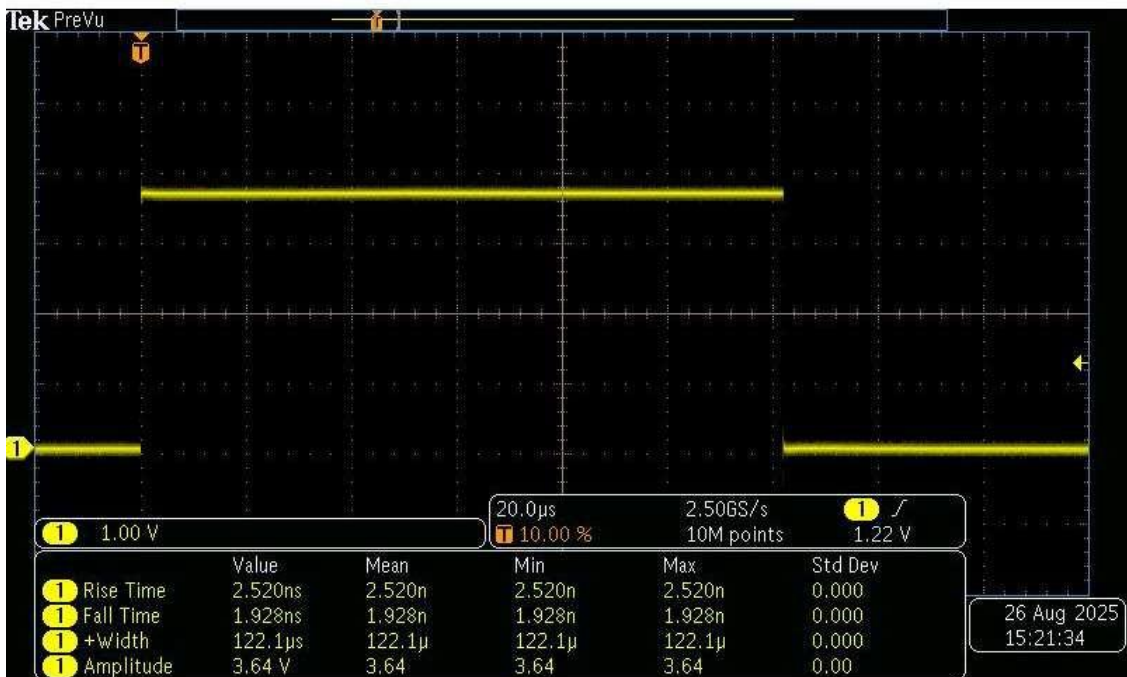
The examples below indicate how having insufficient samples can produce an incorrect image of the actual waveform.



The display system simply plots the acquired voltage levels against the time they were acquired as an x-y graph, usually on an LCD screen, connecting the points with lines.

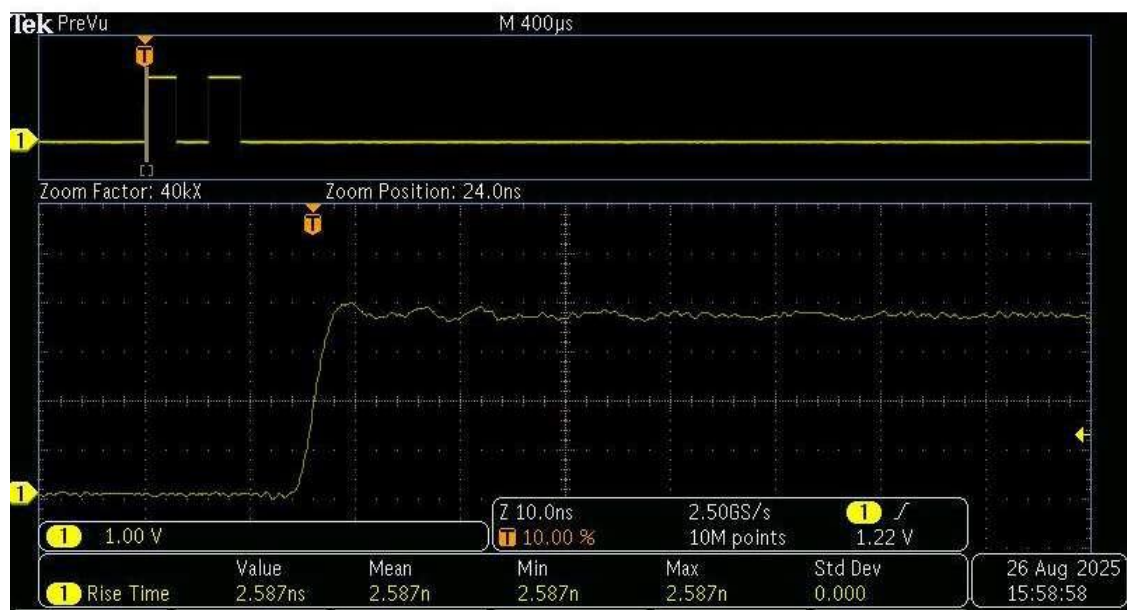
Pre-trigger

Below is a screen capture showing several features which may be available on some digital oscilloscopes. First, that the trigger point is not at the left edge of the screen, meaning that events prior to the trigger may be observed. The orange 'T' can be moved to see more pre-trigger information. Also shown are automated measurements for the rise time, fall time, pulse width and amplitude selected.



Automated measurements

And here is the same signal after it was captured, then expanded out in the lower part of the screen to examine the rising edge. This could be seen as the equivalent of delayed timebase on an analog scope.



Other applications

Not all digital oscilloscopes offer all of the features listed below, so it pays to study the specifications and decide what best suits your needs.

Because the oscilloscope has stored the representation of the waveform in memory as a series of numbers, it can be analysed by software either in the oscilloscope, or by a computer if the waveform data is transferred, usually by a USB cable or using a USB stick.

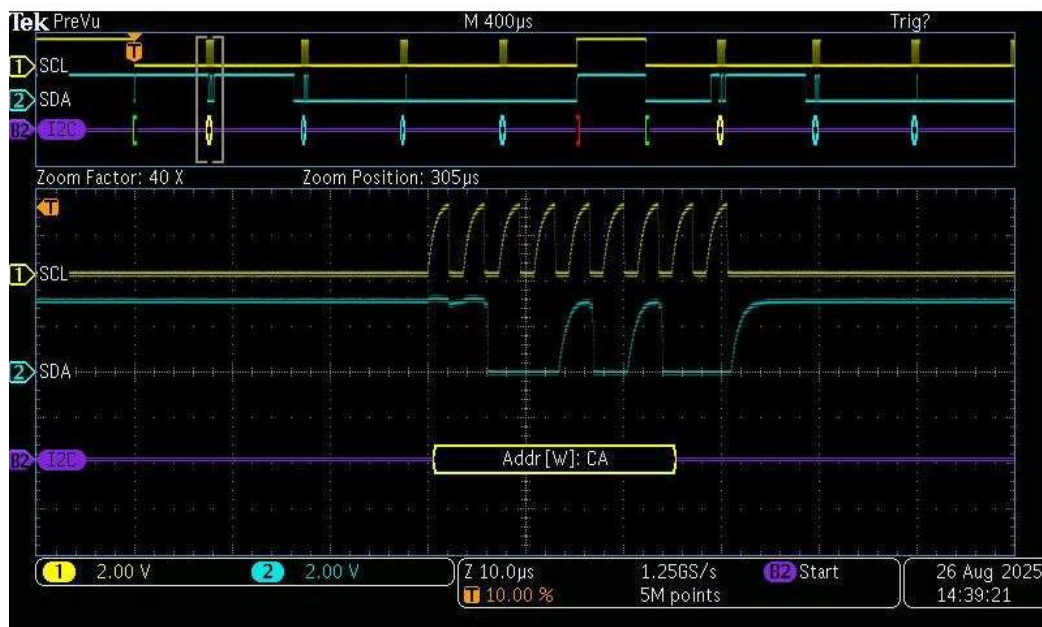
REFERENCE WAVEFORMS

Many digital oscilloscopes allow captured waveforms to be stored in 'reference' waveform memories which can be later retrieved and compared with current captures.

Serial decoding

If the oscilloscope does the analysis internally, serial communications protocols such as IIC, SPI, or RS232 can be decoded and displayed alongside the waveform.

Here is an example showing an IIC signal, where the top of the screen shows multiple transactions, one of which is expanded in the lower part of the screen and decoded as an address write. Other information includes start conditions shown in green '[', stop conditions in red ']', while data transfers are shown in blue.



IIC address write

And below is a time stamped table of the data of the above capture.

Time	Repeat Start	Address	Data	Missing Ack
-80.00ms		[w] C4	1100 1000 1000	
3.341ms		[w] CA	1100 0800 0800 00	
7.072ms		[w] CC	1100 0000 0000 00	
10.80ms		[w] CE	1100 2500 2500 00	
14.55ms		[w] C6	1100 0000 0000 00	
18.32ms		[w] CA	1100 3800 0100 00	
22.04ms		[w] CC	1100 3800 0100 00	
25.76ms		[w] CE	1100 3800 0100 00	
29.48ms		[w] CA	1502 00	
31.57ms		[w] CC	1502 00	
33.66ms		[w] CE	1502 00	
106.3ms		[w] CA	1504 00	
108.4ms		[w] CC	1504 00	
110.5ms		[w] CE	1504 00	

CURSORS & MEMORY DEPTH

On-screen cursors can be used to measure voltage and time values from the captured waveform, and if sufficient samples are acquired by the oscilloscope, it is possible to expand the captured waveform display to look for detail in the waveform. Here again, the oscilloscope memory may limit what detail can be seen – the faster the acquisition rate and deeper the memory, the more detail can be seen.

Some digital oscilloscopes only capture as few as a couple of thousand samples of each waveform, while others capture millions. Also, some digital scopes share memory between channels, so when viewing two signals, only half the memory depth is available for each channel.

COMPLEX TRIGGERS

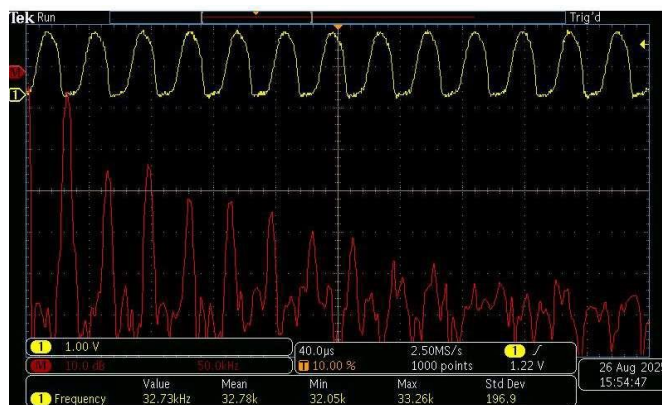
Other possibilities include building a complex trigger event by having the oscilloscope progressively advance through a set of criteria before actually triggering and freezing the display. The trigger event may also include triggering on a particular word on an RS232 line for example, or many other combinations.

Maths and FFT

Most digital oscilloscopes offer some form of mathematical functions which can be applied to the captured waveforms. Examples include adding or multiplying two channels (which is useful for checking real power in watts vs VA by using both a current probe and a voltage probe).

There is also an FFT function offered, which does a spectral analysis of the captured waveform. This is generally not useable for RF signals but can be useful for lower frequency analysis. The display shows a frequency plot of the captured signal. There are limitations on the FFT plot however, not just in terms of frequency range, but also because the FFT only operates on the samples the oscilloscope captured, which limits its ability to give accurate amplitude and frequency values. There are techniques to improve these results using 'windows' to modify how the FFT algorithms process the data. The oscilloscope manual should show examples.

The example below shows the crystal oscillator of a microprocessor running at 32,768Hz. It is clearly distorted and the red FFT plot shows a series of harmonics starting at the fundamental. The vertical scale is 10dB/division with 0-250kHz across the screen. Cursors could be placed to get a reading of frequency or amplitude if desired.



32KHz oscillator FFT

Brian Sala - VK3ZUS for BARG_

JOTA 2025 VK3BML

Contributor Ian VK3YFD



October every year is Jamboree On The Air (JOTA) time where scouts from around the world take advantage of the facilities of local Amateur Radio Operators and communicate by radio with each other. This year JOTA was on the weekend of October 18 and 19. BARG in conjunction with local area scouts competing in the Choen Shield camp at Pax Hill participated in JOTA. There were 13 patrols of around 6 scouts in each patrol participating in various activities such as first aid, pioneering (building structures), navigation and map reading, cooking and radio.

BARG setup an HF station in one the huts at Pax Hill taking advantage of some very tall gum trees we were able to string up an 80m end fed facing North/South as well as an off-centre dipole facing East/West. We also used a simple magnetic mount on the roof of the hut with a 2m whip antenna to enable access to the local RBA 2m repeater on Mt Buninyong. Setup was completed on the Friday afternoon before the Cohen Shield event ready for the start of the event next day at 8:45AM. Due to the time of day we were allotted we were aware that HF propagation may not be too advantageous, which is why we setup an FM radio on 2m to the local repeater.

As well as the usual radio equipment we had a large screen TV being fed by HDMI mimicking the display on the HF radio. This provided a great view of what was going on on the radio and seemed to attract some keen interest with the kids.



Handhelds were given to the kids who had never used radios before to get them used to the idea of how to co-ordinate the PTT and speaking and also to get the idea of protocols that ensured that that they didn't double etc.

Outside of the hut we setup a large tent with two tables separated by several metres. This was our Morse Code Challenge setup. Each table was equipped with a morse key connected to its mate on the opposite table. Keying the morse key caused its opposite end to beep accordingly. The kids were asked to first write their name on paper with dots and dashes so they could get used to the idea of coding. Then they had to create a "secret word" which was then to be transmitted by wire to their opponents. Letters were sent 1 at a time until their "secret word" was successfully decoded at the other end. This proved to be a real hit with the kids.

Being aware that kids often get tongue tied or are embarrassed and cant think of things to say – we pre-prepared "cheat sheets" for the kids. These were things that they could say on air that would prompt and enhance conversations. As we expected the time of day wasn't too kind to good contacts – added to this we had a very high noise floor and it wasn't until the afternoon

we discovered that the ceiling mounted lights were indeed LED's. As well as noise from the lights we also found the chargers for the hand-helds were emitting significant levels of noise too.... That being said we managed a large number of contacts both on HF and FM and pretty much all of the well over 70 kids we had thru had a chance to talk on air.

The event lasted all day Saturday with pack up happening around 6:00PM. Many thanks to Peter VK3APW, John VK3JF & Ian VK3YFD for their time in getting this year's event happening and a huge shout out to the members who listened in and provided their time for contacts for the kids – very much appreciated!

Cheers Ian VK3YFD



What Have We Here?

Our illustrious Dr John, VK3CFH had this on his kitchen table when I visited him for a coffee one afternoon.

Answer at the end of this Newsletter.

MOONAMBEL WEEKEND 2025

Contributor Robert VK3ARM

Very kind weather made this weekend at the Moonambel Recreation Reserve a great success.



Representing Amateur Radio was Robert VK3ARM and Terry VK3UP. Also was an ever smaller number of VKS-737 Travellers. In total there were 11 people enjoying the weekend. The fact that the annual Jamboree On The Air clashes with this activity prevents more support from Amateurs unless the Moonambel group can consider an alternative weekend.

We had occasional others, also camping on the Reserve talk with us during the weekend.

Terry made quite a number of HF contacts over the weekend, using his TS-2000 and a vertical antenna. Robert made a number of Park contacts, using his FT-897D and an end fed wire array.

We had many pleasant conversations around the fire pit. I've already had a conversation with the Moonambel organiser about the thought of finding an alternative weekend next year that doesn't clash with other Amateur Radio commitments. Time will tell.



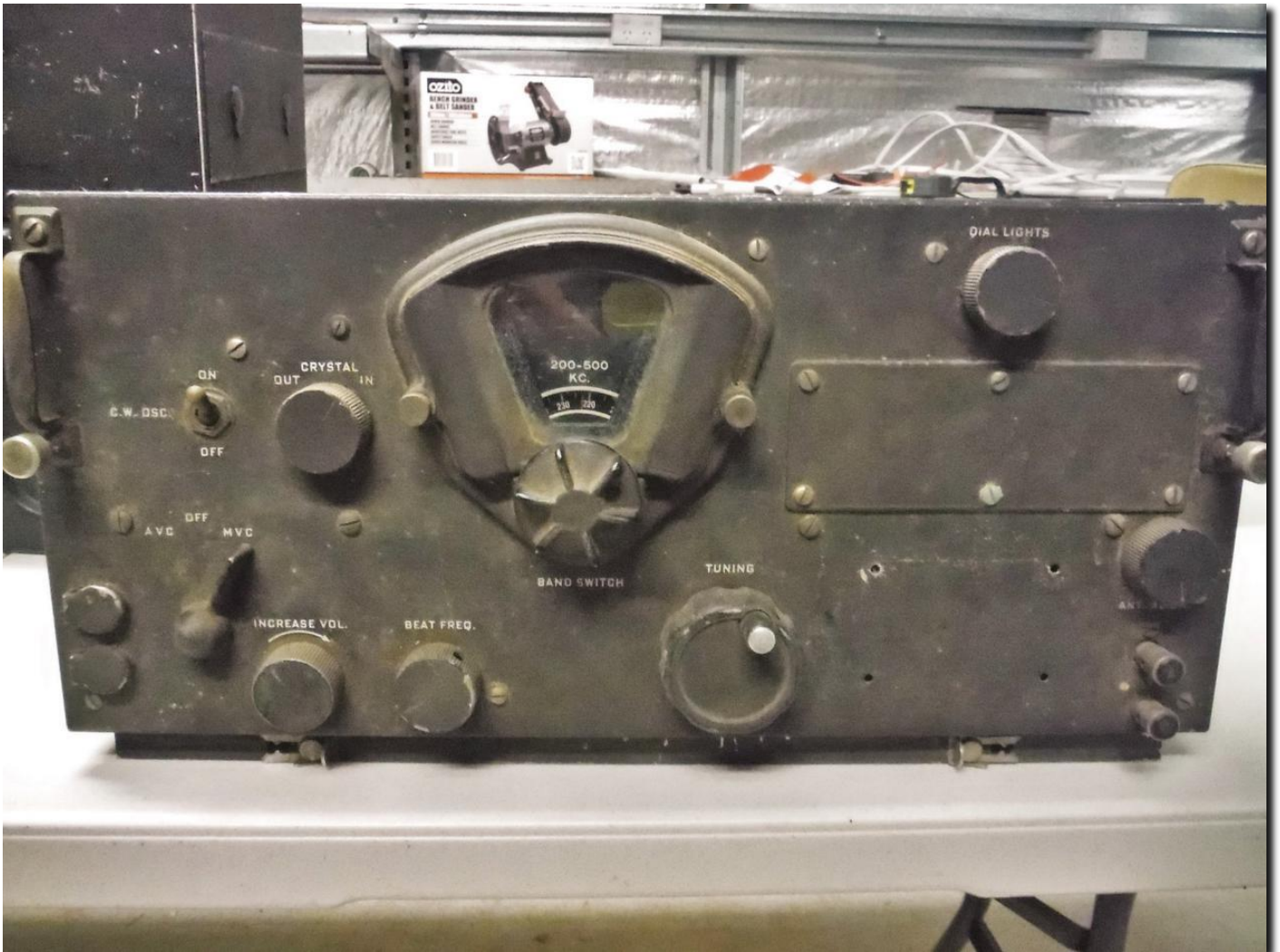
Cheers Robert VK3ARM

Restoring WWII Military Radios

Contributor. Neil Patton VK3ZVX

Back in 2017, a guy walked into the Bendigo Amateur Radio and Electronics Club open day in Castlemaine, Victoria and deposited on our table an old black metal radio that he said he no longer needed.

Then he walked out.



We never got a chance to learn his name or even a chance to thank him.

No one else seemed to want it, so it came home with me and became the starting point of my collection, and what has developed into something more than just a hobby.

I quickly learned that it was a BC-348 HF receiver from a B-17 bomber, that there were about 85,000 of them made, and that they had been one of the communications mainstays of Allied air forces in Europe.

It didn't work, but my training at the AWA Melbourne Avionics Workshop during the 1970's served me well - and it soon did.

The something more turned out to be a sense of recognition of the heritage contained in these, now, very old radios. They not only embody the courage and sacrifice of an entire generation that has now passed from us, but a way of thinking about objects as having value

in their own right - the notion that if you are going to build something, it should be built well, it should be built to last, and it should be repairable so that it does.

Some people who restore equipment like this are 'purists' and believe that every aspect of their work must be as the manufacturer intended and, in many cases, I respect that. If the means are available to do a complete 'as built' restoration, then that is what certainly should be done.

Unfortunately, that is rarely the case now unless you have two radios and are prepared to sacrifice one for the sake of the other.

I hold a somewhat different, arguably more pragmatic, view.

My motto is 'Get It Working'.

If something works, it has a much lower chance of spending the next 30 years in someone's shed until it is eventually forgotten and then discarded through ignorance - which is what usually happens.

The other part of this philosophy is that appearances matter.

If something 'looks' like junk, most people will assume that it is. But if time and trouble have been taken to ensure it looks like it has value, most people will assume that instead.

I'm also not deterred by my own ignorance. Every restoration is an adventure and an opportunity to acquire knowledge that might otherwise be lost.

A case in point was the CV46151 'ARB' receiver. These were in widespread use by the US Navy in their 2-seater torpedo planes and dive bombers.

The ARB was standard issue on the SBD Dauntless dive bomber, the instrumental weapon that won the Battle of Midway and turned the tide of the Pacific War in June of 1942, only 6 months after the Pearl Harbour attack.

My ARB was listed on Gumtree. It was completely unrecognizable, and I bought it without actually knowing what it was.

The previous owner was a ham and had modified it during the 1950's before using it for many years as his station receiver - as was often the case with WWII surplus radios.

The restoration was not aimed at making it 'right' again but rather at making it 'relevant' again.



The manufacturer's compliance plate was found and placed back on the newly-made front panel, restoring a key part of its original provenance.

But I also, rather proudly, put my own callsign and the year of restoration on it.

This radio has a unique story to tell and part of my job as its custodian is to ensure that it can be told properly. And, no, it does not look original, but it is most certainly a radio that can be used - and that is what matters.

Another part of what I do is creating original builds using traditional techniques and design styles. This is not only fun, but it helps put to use components that might otherwise be lost to landfill.

One needs to be a bit careful in doing this and avoid using vintage parts that 'belong' to something else. Generic components such as knobs are not such a problem, but depriving an otherwise restorable unit of a key component, say a roller inductor, is an absolute no-no.

And one sometimes needs to be content with look-alikes, rather than a completely vintage bill-of-materials, like plastic Chinese round panel meters rather than a genuine Bakelite 1940's Westinghouse original - which is 10 times the price and very likely may not work.

This project is called 'Red October'.

It's a 1kW rated HF linear built with a pair of Soviet era GK-71 vacuum tubes and a mish-mash of junkbox transformers, recovered tuning gangs, leftover knobs, and repurposed metalwork, combined with a basket-full of new items bought from eBay.

The circuit is based around a 1966 ARRL design for Dual-813 HF linears.

The styling is unashamedly retro and it will fit in beautifully with the genuine restored vintage treasures in the WWII AM station that I run.

Importantly, the casing is a genuine 1930/40's rack unit rescued from a back shed and which would otherwise have simply rusted away to nothing.

It was in a bad way, although still sound, when I first got it, and a now familiar regime of surface treatments has brought it back before it proved itself to be the perfect size for a project that I'd had in mind for some time.

Since my first foray in 2017, I've restored:

2 BC-348's

1 ART-13 (B-17 transmitter)

1 TCS-12 patrol boat radio system (receiver and transmitter)

1 ARB

1 Marconi CR-101/8 receiver

1 (very rare) Type-78 HF receiver

1 AR8 HF receiver with most of the plug-in modules

1 Larkspur HF ATU

...and I've built a few vacuum tube HF projects with various experimental approaches.

As I said, restoring this gear is more than a hobby.

It's about history, heritage and learning.

And if guys like us don't take on the stewardship of these things, who will?

Regular AM 'Boatanchor' Nets are run on 7125kHz Wednesday and Saturday mornings in VK4 for all the early-bird Banana-benders, while the sleepy-head Mexicans from VK2,3,5&7 are on straight after. 73 Neil VK3ZVX.



Play your part!!

Join today!

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Tick which period and fee.

Membership	☐ 1 year	☐ 5 year
Member	☐ \$95	☐ \$451
Overseas Member	☐ \$105	☐ \$500
Concession Member*	☐ \$80	☐ \$380
Student**	☐ \$35	
Additional Family Member***	☐ \$36	

* Please provide pension health benefits card number.

** Please provide evidence below of being a full-time student.

*** Please provide name and callsign of primary family member residing at the same address.

Provide concession details

.....
.....

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Work Telephone (optional)

Mobile Telephone (optional)

Email Address

I apply for membership of the Wireless Institute of Australia and agree to be bound by its constitution (available on the WIA Website).

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or authorise payment of \$ by way of debit

to my ☐ MasterCard ☐ Visa Credit Card

CVC

Card No.

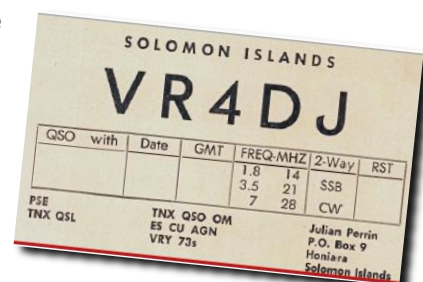
Expiry Date ____/____ Name on Card

Signature of Applicant Date ____/____

Magazine Reviews

Amateur Radio Review Volume 93 Number 5

- P4 Editorial. Roger Harrison VK2ZRH. Island Adventures flavour with tales of good and bad luck. Kirsti VK9NL sadly SK.
- P5 Your WIA working for you. BUNKUM. Bruce VK3WL. Information confirming the non-collusion with respect to the 5MHz regs and the ACMA and WIA.
- P7 International News. Spotlight on amateur radio in ITU report. Exam question bank released. Science, education and technology - Biennial Ham-E-Con Amateur Radio Conference. Emergency communications USA. Women, IT and communications.
- P10 WIA news. Tasty 2025 Tokyo Ham Fair. An Albury AGM next May. 2025 Solar Challenge. QTech2025 ramping up.
- P12 Solar Cycle Update. Are we there, yet? Did we miss it? Sunspot activity took an alarming dive in May, bouncing back in June, recovering quickly to plateau at levels similar to the early months this year. Are we in for a 2nd peak, like the last five cycles?
- P13 ADVENTURES ON ISLANDS. Martin FO5GJ World's most famous island-based amateur. World's most famous island-based amateur. From the atoll of Teti 'Aroa, in the South Pacific's French Polynesia (see above), actor Marlon Brando, worked worldwide DX under the call sign FO5GJ.
- P14 ADVENTURES ON ISLANDS. Cocos-Keeling, Diego Garcia and FIFO DXing. Paul Roehrs VK5NE, VK9YB*. Palms, planes and perfect propagation. The Indian Ocean is littered with island archipelagos of strategic importance to Australia, the UK and US. Small populations have been sustained by multinational interests going back centuries. The Cocos-Keeling Islands, aka Cocos (Keeling), located at 12.20 S, 96.80 E, are about 2750 km from Perth. Diego Garcia, at 7.30 S, 72.40 E, is some 2700 km from Cocos. [Wikimedia].
- P17 ADVENTURES ON ISLANDS. Sweet sojourn in the Solomons; it was the '70s Jules Perrin VK3JFP, VR4DJ. Honiara is located on the northwest coast of Guadalcanal. "Iron Bottom Sound," where all the scuttled US hardware lies, spans the waters between Guadalcanal's north shore, Savo and the Nggele islands. (Wikimedia, cca3.0).
- P20 ADVENTURES ON ISLANDS. YJ8OT adventures, and snagging a 6m first. Steve Gregory VK3OT, YJ8OT. Once known as the New Hebrides, Vanuatu sits at around 150 south, 1670 east – an interesting location for HF and VHF propagation.
- P22 ADVENTURES ON ISLANDS. Idyll on the Isle of Wight. Phil Hartwell VK6GX, G3YC. The largest island in England, the Isle of Wight is adjacent to the county of Hampshire, separated by The Solent strait. GLD, GNI and GNF are the locations of the three MF Coastal Radio Stations at Lands End, Isle of Wight, and North Foreland, respectively. [Wikimedia cca3.0].



- P24 **ADVENTURES ON ISLANDS.** What you need to know to legally operate abroad especially some islands. Peter McMahon VK3HEX and Bruce Kendall VK3WL/9V1WL. A poultice of practical pointers. Who you need to contact, what you need to take, what you do when you get there. Singapore is a popular travel and work destination, but the Amateur Radio Service is not well understood by the authorities. Nearby Indonesia is more welcoming in terms of amateur radio operation.
- P29 **Mounting a G90 rig into an ammo can.** Ammo can re-purposed for a 'hammo-can' go box? for a ready-to-go radio. Carmel VK2NO. Going POTA portable needs a simple yet functional set of gear and fitted into a handy chassis. Step by step construction along with excellent images of how it went together.
- P34 **Homebrewing digital with GNU Radio.** A DIY path into learning digital technologies for radio transceivers. Dave VK1DJA. SDR dongle. It contains a complete wideband digital receiver system inside in a miniature plastic housing, much like a memory stick or thumb drive, with a USB connector at one end and an RF connector at the other. [Amazon]
- P41 **A triumph of perseverance: one lad's amateur radio achievement.** Scouting Spirit – from Port Cygnet, Tasmania. Mel Lewis. Scouting is about fostering resilience, courage, and a spirit of adventure and 13-year-old Jack exemplifies these values in every way. Jack Lewis achieved his Amateur Radio Qualification recently, a remarkable accomplishment for anyone, let alone someone his age.
- P42 **Receiving Slow Scan TV images from some satellites** Dale Hughes VK1DSH. Basics of using SDR to receive SSTV from satellites and the ISS. Antenna details and software needed to accomplish this enjoyable part of radio.
- P48 **Just what does your S-meter indicate?** Garry VK2DBN. About the S-meter standard for radio amateurs. How accurate are those S-meter reports we are given? Do S-meters report our signal strength accurately, or are S-meters just "guess meters"? A concise description of what an s-point means and how you use it.
- P50 **ALARA.** Norma VK2YL. Penguin Parade outing. Birthday celebrations. Puffing Billy excursion. Linda VK7QP tries roving. SK: Marilyn Syme VK5DMS. SK: Anne Landers VK7BYL. Girl Guides Technology Day. Prepare for Jamboree on the Air.
- P54 **Below 25.** Young people on the air with Alec VK2MV. YOTA contest and Fox Hunting.
- P56 **Contesting** The perfect radio fix for the time-poor amateur. Trent VK4TS, active with Team VK4KW. Getting into contesting, not just local but international contesting for a weekend outing or at home activity.
- P60 **Spectrum Horizons.** MAD winter days, making & breaking records. Kevin VK4UH, President Brisbane VHF Group, and WIA VHF-UHF Distance Records Manager. MAD encouragement The general intention of the MAD program is to encourage planned activity and the selection of portable locations etc, to maximise and rationalise the number of target stations available for contacts and to avoid multiple operators all appearing at the same location.



- P62 WestNews. Will VK6UU. VK6CRO remote station. The upgrade to the remote station VK6CRO at Carnarvon.
- P64 WIA DX Awards. Marc VK3OHM/VK3IP.

QST Review September 2025

The September 2025 edition includes a range of updates and features for members to enjoy. Highlights this month include a spotlight on club member Louis, KI5TD, and discussions on homebrewing, the CW requirement, and antenna projects. Be sure to check out the details for the upcoming club meeting, and don't miss the latest technical write-ups and correspondence from fellow enthusiasts.

P9 Second Century. Make your election account. A privilege OF MEMBERSHIP IN ANY ORG, Don't throw

P13 Member spotlight on member. Louis. KI5TD.

P24 Correspondence Homebrewing, CW requirements

P30 The Performer. An antenna which is , Resonate and just elevate above the ground and , What it is a Resonant Quarter wave dipole.

P10 Club activities update. The monthly meeting will be held at the community centre on 15/09/2025 from 7:00 PM to 9:00 PM. All members are encouraged to attend and bring along any recent projects or ideas to share with the group.

Sitting about 5 feet above the ground makes it an ideal Field day In addition topics above, this month's newsletter features a detailed review of recent advancements in radio technology and practical tips for setting up a reliable home station. Members will also find a handy guide on troubleshooting common equipment issues, as well as a recap of last month's successful field day event, with photos and insights shared by participants.

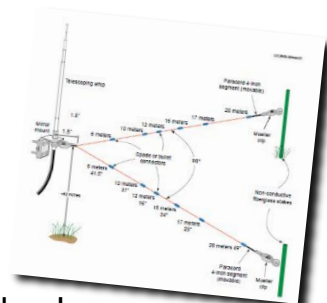
P35 Repair your Radio Without Circuit Analysis. Using your observation skills damaged to components, burnt or smoking parts, Globes/lamps that are not working BUT really you do need to know something about technical matters especially these days when we are less capable in servicing smaller devices or understanding the inside workings of those small black insects on the pcb.

P38 REVIEW: SharkRF M1KE Handheld WLATrceiver. Palstar AMU-1K Automatic Antenna Tuning Network, Rated for 100W and covers 1.8 to 30Mhzs and finally the Halibut Electronics EggNOGGS Antenna.

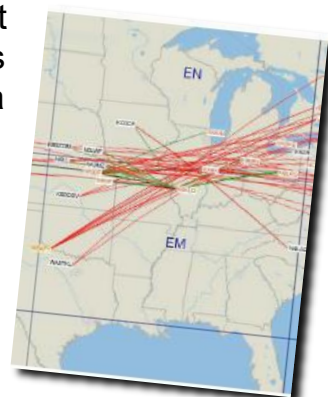
P50 Ask Dave. Antennas and Grounds, Trouble tuning an EFHW Antenna, Ground Rods and earthing bars, Mobile HF ant for home use, Splitting power over two antennas.

P52 Hints & Kinks. Modifying a Stand to use on Portable Test Gear, and Tracking Down Interference about the shack,

P54 Unforgettable An excursion to Henry Island and the lighthouse. A lighthouse weekend using club members of the Port Hood. Nova scout club.



- P61 Add an SDR Receiver to Any Ham Radio. Hayden VK7HH/KD9SSB. Improve your receive performance, without compromising your main transceiver, using an SDR switch with an LNA.
- P65 YOTA Camp: Empowering the Next Ham Generation. Bianca LU9YBM. An Argentinian operator was inspired by the program's peer-led approach to learning and enjoyed connecting with other young hams.
- P67 A POTA Activation on a Volcano. Andrea IWØHK. With an EFHW, IWØHK operated on 20 meters from the iconic Vesuvius National Park. Planning and execution of a very successful POTA.
- P70 Staying Current on Disaster Preparedness. Steve, WA7PTM. Regularly evaluating our EmComm procedures can help ensure readiness for any crisis, with or without the use of commercial technology. A very concise article on the individual, groups, state and national scope of disaster operational requirements.
- P73 2025 Simulated Emergency Test. Steve WV1X. The annual ARRL SET will be October 4 – 5, 2025. Information on the forth coming test national test.
- P74 2025 ARRL International DX Phone Contest Results. This year's ARRL International DX Phone Contest was held March 1 – 2, 2025. The next ARRL International DX Phone Contest will be held March 7 – 8, 2026.
- P75 Happenings. Amateur Radio Volunteers Serve During Texas Floods. At the time of publishing amateur operators were helping with the major floods in Texas. The trained ham radio operators were activated on July 4, 2025. Radio amateurs are providing communications capabilities to agencies whose primary systems were damaged in the flooding event, or where they suffer poor connectivity due to the terrain.
- P78 Public Service Net Gains: Tips From, and For, the Field Recruiting new members for local Amateur Radio Emergency Service® (ARES®) and other nets can be challenging.
- P80 Club Station. The Evolution of Ham Radio Clubs Ham radio has been a fundamental part of global communications for more than a century, bridging gaps between people and fostering a unique community bound by a passion for radio technology. Over time, clubs dedicated to ham radio have adapted to the latest trends, technologies, and societal shifts.
- P82 Ham Media Playlist Q5 Worldwide Ham Radio If you do a quick search on YouTube for "ham radio," you will be inundated with results. There is no doubt there are a lot of content creators, each with their own feel and format. One format you won't find a lot of is that of Kevin Thomas, W1DED, on his channel, Q5 Worldwide Ham Radio. Kevin uploads content in a variety of formats for ease of watching, listening, and reading.
- P85 How's DX? 3YØK: February 2026 DXpedition to Bouvet Island In this month's column, 3YØK team leader Kenneth Opskar, LA7GIA, announces an upcoming return to the DX community's 11th most-wanted entity.
- P87 The World Above 50 MHz Summer 2025 Sporadic E and Rare Grid Activations June is usually the peak month for sporadic-E propagation in the Northern Hemisphere. But, day after day this past



June, stations noted few or limited Es openings on 6 meters. Several grids were activated for the Fred Fish Memorial Award, but the activators reported minimal contacts. Robert, ZL1RS, went to call sign regions E6 and YJØ, and he made few contacts to North America. The ARRL Field Day weekend was a bust for sporadic E; openings were scarce on 6 meters, and there wasn't much activity for 10 and 15 meters. June had only a couple of good days for Es overall.

P101 Celebrating Our Legacy Uncovering My Call Sign's History. W4JBM digs into the history of his callsign.

P103 Classic Radio. George, KE8RN, ke8rn@comcast.net takes a look at Hallicrafters Premium, General-Coverage Receivers. In 1951, Hallicrafters designed the S-76, a receiver that featured the first 50 kHz low-frequency intermediate frequency (IF) for improved selectivity using only inductive and capacitive components. Soon after, they constructed a group of general-coverage receivers that had this feature and built on the advances they made with the S-76.



Cheers Craig VK3KG

QST Review October 2025

Here is the October edition and we have just barely finished the September one.

P4-5 Index for edition,

P6-7 A new publication from ARRL a book called STEALTH ANTENNAS for Ham Radio item No; 2288 and selling for USD\$22.95. A second book called Ham Radio FROM INDOORS. Which covers a range of indoor suitable antennas. Item no 2189 and costing USD \$17-95 retail. May order online for www.arrl.org/shop



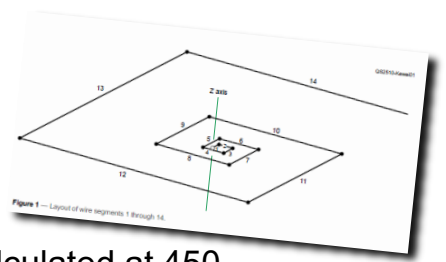
P9. Second Century, Future proofing. ARES. David NA2AA challenges all amateurs 40. to prepare for a future need to support the country in time of any emergency. In Australia we have the CFA, SES and WICEN and EMCOM. Are you available [and actually ready to deploy with all your kit?] Are you "up in the use of various technologies that amateurs can provide in emergency.? This note provides a couple of check headings for readers.

P13. Member spotlight is on Brian KG5GJT. Familiar with the use of CB radio on driving and hunting trips with family from an early age he went to an amateur demo at his sons jamboree and from that his seven year old son wanted to know more and the die was set for both them. Then his wife and 13 yr daughter became interested and now the whole family are licensed,

P24 Correspondence.

P30. Using AI to improve the readability of Weak Beacons. Weak signal recovery from noise by using ChatGPT and Python.

P33. An Exponential Spiral Antenna. Is an NO TUNE ant covering 160 thru to 10M A chart gives measurements for fourteen segments of the antenna in both meters and feet and a NEC simulation plot of SWR versus frequency shows NEC results reaching 3.0:1 at the lowest frequency BUT the measured SWR being very much lower than the NEC figures.. Feed impedance calculated at 450 Ohms.



P36. 160/80 metre trap vertical . Th

P40. Alinco DR-CS10HT transceiver for 2M. and a 60Watt output. Costing USD 170



P43. Three 1500 VA UPS Units Introduction. Uses multiple AC outlets. There is also an explo on making own chokes on the AC cords for suppression of RF noises.

P52. Ask Dave, covers questions of Antennas , RFI, and HOA compromise with Antenna about the house. Restrictions. In Australia we have the Uniform Building Regulations to cover these. Currently a Bill is pending in Congress that may allow amateurs some freedom to erect antennas at home OR MAYBE it will legislate the other way and restrict further the type and physical size an amateur can erect a tower on their property.

P54. Microwavelengths. Looks at amateur microwave beacons follows on from the April 2025 Microwavelengths and now looks at waveguide slot antennas. It looks at sectorial horns for 10K MHz and how to weatherproof them.



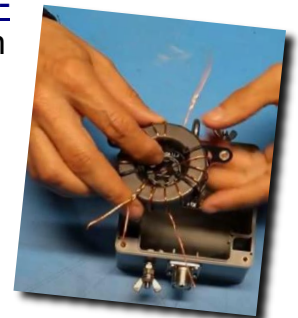
P56. SOTA and Data Holidays. Spain via Italy

P58. A Worked All Countries award 48 years in the making. The Mt Airy radio club [known as the Pac Rats] have been given ARRL accreditation for EME activation in South America. An interesting group and their equipment described in this edition.

P60 Rally cars and radios put to test in Pennsylvania two day rally. Some readers will remember the RALLY of MELBOURNE activities that many WICEN operators used to participate in here back in the 1970's. Roger Baker VK3BKR [recent SK] was very active in organising the radio comms for. Nothing new for an experienced amateur. Radios, both primary and secondary. [in case of a fault.] Antenna and a backup or alternate style one. What about clothing for you the operator. Many a mountain top check point has been closed during an activity, Are you able to survive a cold snap [freezing] and yet keep the body core warm enough to survive. Other challenges include fuel/oil for the vehicle, and rations for the operator, spare batteries include a torch etc. It would be interesting to check the gear that parks ops take out thinking its only a three hour activity so don't need to take much. Oh what about a spare car key around the neck in case you dropped the main bunch in a snow or sand drift and didn't realise you had a hole in the shorts pocket.



- P63. POTA Hot air ballooning over the USA-1015. A new way to activate while tethered at 75 feet.
- P65. A Mobile station in a Jeep. Got some spare cash? Buy a 2004 Jeep Wrangler and commit it to emergency radio comms exclusively. One ham did Interesting to read as he considers some ways to mitigate ignition noise in cars .
- P67. ARRL board meeting creates a 10 Band DXCC, and nominates 2026 as Year of the Club among other matters at their Winsor meeting in July this year.
- P71 Happenings: Seems a move is on to take the 70cm band in the US for telemetry and tracking of satellites, MUCH TO THE CONCERN OF THE ARRL AND MEMBERS. A docket raised and sent to the FCC over this Apparently there are 248 satellites up there they want to talk to and they exhibit a 256kHzs B/W. www.arrl.org/files/file/FCC%20Documents/ARRL-Partial-Opportunity-25-201.pdf
- P73. Included amongst other articles is a half-page story under the banner of the QWIA badge concerning its response to the ACMA and the five year planning policy for the Spectrum management, Class licence clarification, higher power licences exams . The WIA has also advocated expanded access to 50 to 52 MHz band as well as the small segment on 60M band, [5351 to 5366MHz, They also reiterate the need and inport of keeping the access to the 2300 to 2302 segment.
- P75. In interest to all amateurs and safety when operating in the field this article makes good sense about how to conduct self and safety matters for others in your envelope of activity,. SAFETY, STAND DOWN: LOOK UP and LIVE. This of course looks at power lines and radio masts and how you access if your wok place id safe for you and others,
- P80. Club station, shows how many clubs proceed and operate.
- P82 Antenna builds A 10M Vertical by Hayden VK7HH and has a YouTube www.youtube.com/@HamRadioDX and <https://tinyurl.com/10M-Vertical> And another spot for a 10Metre half wave Dipole is given by Otis Dyson. Finally there is a and End Fed half wave kit and mentions a three part video set. Antenna performs on 10,15,20 and 40M with a rating 250W
- P86 World above.. Discussion on a number of items', October F2, False 2M spots, Rare Grids and First timer success.
- P95. From QST of November 1975
Build a cheap 5 cent tester for transistors
Until Next month... Cheers Craig VK3KG



Silicon Chip Review October 2025

- P3 Publishers Letter. Nicholas Vinen. Looks and comments on the changing world of the major computer CPU manufacturers.
- P12 Autonomous Vehicles. Discussion on advanced driver assistance systems, a timeline of its development and how the basic systems work and perform.
- P29 Digital Preamplifier and Crossover. Part 1. Phil Prosser. An advanced preamplifier that uses digital processing to provide



unprecedented flexibility. It has three digital inputs, including high-fidelity USB, four analog stereo inputs, four stereo outputs, two digital outputs (including USB) and a stereo monitor channel with a frequency response: 7Hz to 43kHz @ -34B (with PCM1798 DACs).



- P46 Home Assistant. Part 2. BY RICHARD PALMER. Explains how to set up a Raspberry Pi Home Automation hub. Also a Satellite, allowing the connection of all sorts of low-cost, sensors, relays, displays and more. Camera connections and topography are discussed for your application.

- P54 Vacuum Controller. John Clarke. This Vacuum Controller switches on a vacuum when an appliance such as a circular saw is started. Runs the vacuum for a preset period after the appliance is switched off to draw up remaining dust. It includes optional blast gate control, and interlinking between units, for use with more than one tool.



- P68 Buying Second-hand Speakers. Julian Edgar. It is very satisfying and fun building your own speakers. However, it is not a cheap process if you want good results. A guide to what to look for and what you need to get that nice sound at a nice price.

- P72 Dual Train Remote Control. Les Kerr. This add-on to the Battery-Powered Model Train allows two different model locomotives to be controlled wirelessly from a single box. In the January 2025 issue was an article on how to control the speed and direction of a single model train using a 433MHz radio link. This project uses the same components but with a dual train control addition.



- P80 High Performance Pendant Speaker. Part 2. Julian Edgar. The starting point for the enclosure is a Bunnings pot that is made from recycled plastic. Directions on how to make the baffle and the circuit diagram.



- P86 Serviceman's Log. Items Covered This Month, Testing, traffic & troubleshooting, Refurbishing a Toshiba P750 laptop, The intoxicated wheelchair.

- P94 Vintage Radio. Reinhartz 2TRF Receiver. Philip Fitzherbert and Ian Batty. A 1984 kit from Electronics Australia of this 1920's design.



SPRAT The Journal Of The G-QRP Club Autumn 2025

- P2 Editorial. Steve G0FUW. Editor Tex has taken a tumble, but is recovering. New office bearers, updating the club online parts site.
- P3 Valved QRP Report. Paddy G4MAD. Recycling valve gear, PW regen, a high voltage and heater power supply and some activities portable.
- P7 G-QRP Construction Competition. Details of how to enter your project to win the George, G3RJV (SK) trophy.



<http://www.barg.org.au/wp-content/uploads/2024/07/BARG-Form-Membership-Application-Form-was-V3-Rev-PA11.pdf>

BARG Form - Membership Application Form (was V3) Rev PA11.docx



Ballarat Amateur Radio Group Inc
Registration Number A0006953T
ABN 44 247 200 143
Application for Club Membership

This completed document should be emailed to the Secretary at BARG@BARG.ORG.AU, or brought along to a face to face meeting.

Surname: _____ **Given Names:** _____

Callsign: _____

Are you a financial member of WIA?: Yes No

Partner's Name: _____

Residential Address: _____

Postcode: _____

PostalAddress: _____
(If different to above) **Postcode:** _____

Telephone;
(Work) _____ (Home) _____ (Mobile) _____

EmailAddress _____

Unless otherwise requested, Newsletters and Club information will be sent to your email address. If the Club decides to publish a Club Directory, are you willing to have the above information included? Please indicate: **Yes** **No**

By applying for membership I indicate my support of the purposes of the Association and agree to comply with the Association rules in effect.

Applicant's Signature: _____ **Date:** _____

Proposed By: _____ **Callsign:** _____ **Date:** _____

Seconded By: _____ **Callsign:** _____ **Date:** _____

--ooOoo--

Presented to Committee: _____ **Decision:** Accept / Reject

Fee Paid: \$ _____ **Date:** _____ **Receipt No(if applicable:)** _____

Entered into Membership Register: _____ **Secretary:** _____

BARG Form - Membership Application Form (was V3) Rev PA11.docx1 of 1